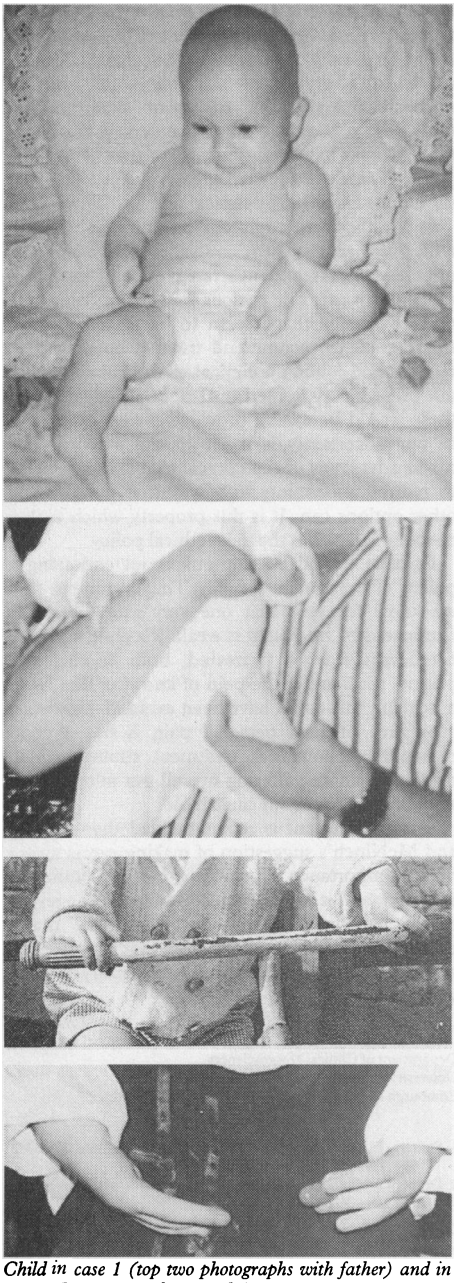

Child in case 1 (top two photographs with father) and in case 2 (bottom two photographs)

slight shortening and bowing of both tibiae with overgrowth of the fibula, probably resulting in dislocation of the ankle. Ossification was seen in a slightly enlarged calcaneum, with one tarsal ossification centre and one metatarsal and a triphalangeal digit. Both hands show some ectrodactyly with two triphalangeal digits associated with two metacarpals.

Her father has no thumb or digits on the right hand but has a thumb and one digit on the left hand and has normal forearms. He has four brothers and four sisters, who are all normal. His siblings have produced 18 children and five grandchildren, all of whom are normal. The child's mother has one sister and three brothers, all of whom are normal.

CASE 2

Another thalidomide victim, in Kent, has also fathered a child with limb malformations. The father has bilateral malformations of the forearm and hand and also suffers from left sided deafness. His daughter also has malformations of both forearms and hands. His first child, a boy, is normal.

COMMENT

It is recognised that thalidomide can affect most of the major systems of the body, depending on the time of embryogenesis when it is given, although the pattern of malformations shows wide differences, even when it was taken at the same stage of pregnancy. For example, in a triplet pregnancy in a marmoset, *Callithrix jacchus*, one normal and two malformed fetuses were observed: one of the malformed fetuses had anotia and almost complete amelia of all four limbs, while the other had only minor degrees of ectromelia of the upper limbs (unpublished observations).

At the molecular level thalidomide affects the secondary structure of rat embryonic DNA.[1]

Thalidomide might possibly damage the embryonic ovary or testes in some people. The occurrence of double uterus and double vagina in some victims was not recognised until 1981,[2] 20 years after malformations due to thalidomide were first described.[3]

Comprehensive studies of thalidomide victims were done in Japan by Hamada and Matsumoto[4]; they suggested the need for close follow up of patients damaged by drugs, with attention focused not only on morphological defects but also on functional defects that might develop in various organs.

The mechanism of thalidomide teratogenesis has not been completely elucidated. The birth of these children raises the possibility of thalidomide being a human mutagen. If it is, it will be the first drug shown to affect future generations. It will cause us to rethink our testing procedures for all drugs.

These case reports are published with the written permission of the families.

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** We asked Andrew Read, a medical geneticist, to comment on these cases.

EDITOR,—This report raises a concern that it is right to air but that I believe is almost certainly unfounded. I think that everybody agrees that the classic malformations due to thalidomide were caused by interference with the way in which genetically normal embryos develop and not by mutations. If thalidomide had a second, independent activity as a mutagen there would be no reason why it should specifically produce mutations leading to limb malformations. Mutagens attack genes at random. Thus mutagenesis might equally well result in achondroplasia or neurofibromatosis or any other genetic condition in which new mutations are frequent.

I think that W G McBride and I agree that the two affected children probably have genetic syndromes. The baby in case 1 seems to have split hand deformity (No 18360 in McKusick's catalogue[1]). A similar case, but not involving thalidomide, was reported by Sommer and Hines.[2] The child in case 2 has a different condition, involving reduction of the whole arm and shoulder, probably the Holt-Oram syndrome (McKusick no 142900). The Holt-Oram syndrome is associated with heart defects, but these do not occur in all cases.[3] Both conditions are autosomal dominant conditions, so it is no surprise that each child has an affected parent. The grandparents are reported as unaffected, which suggests that a new mutation has occurred at some point in each pedigree, as frequently happens with these dominant malformation syndromes. Since each father was exposed to thalidomide in utero it is quite possible that the fathers' malformations were caused by thalidomide—or maybe by a combination of a genetic predisposition and the teratogen.

It is important to remember that many thalidomide victims have producd entirely normal babies. Without much more substantial evidence it would be wrong to burden these people with inherently implausible worries about hereditary defects.

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1 McKusick VA. *Mendelian inheritance in man*. 10th ed. Baltimore: Johns Hopkins University Press. 1992.
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Ear piercing and children's rights

EDITOR,—Over 12 months at our accident and emergency department in Cardiff we saw 32 cases of embedded earrings, mostly in children. Nine of the 32 cases showed signs of infection and these were all in the younger age groups. All patients presenting with an embedded earring required a minor surgical procedure under local anaesthetic to remove the retained piece. In a survey of ear piercing in the general population presenting to the department, 200 consecutive patients (100 male and 100 female) were seen. Half of each group were under 14 years old. Of the girls under 14, the average age of piercing was 4 years (range 6 months to 10 years); of those over 14, the average was 18 years (range 1-60 years). A similar trend was seen in the males but with fewer ears pierced in total.

Ear piercing among children seems to be on the increase and is being performed at an earlier age with each generation, with some of today's generation having their ears pierced as neonates. Well recognised complications include infection, allergy, inhalation, keloid, and embedding.[1-4] No useful guidelines have as yet been described except to suggest that ear piercing should not be performed in young children. Children should be involved in their health care according to their age and maturity rather than becoming "passive recipients" of their parents' views. Infants have not had the opportunity to make an informed decision. In older children, inappropriate advice and direction was present.

This coincides with Luisa Dillner's article highlighting the fact that Britain continues to ignore the rights of children despite ratification of the United Nations Convention on the Rights of the Child two years ago.[5] We have distributed guidelines on good practice to interested health professionals advising parents who still want to have their child's ears pierced. These guidelines should help reduce the unnecessary distress and suffering endured by children, who are victims of their parents' fashion beliefs. These guidelines are available on request.

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Children's consent to treatment

EDITOR,—In their editorial on the capacity of children and young people to consent to medical treatment J P H Shield and J D Baum make no reference to young people suffering from mental disorders.[1] Children and young people may present, though not commonly, with severe mental disorders such as schizophrenia, major depression, and anorexia nervosa. Each of these disorders can be severe enough to put the patients' lives or the lives of others at risk. When a young person with such a disorder is adjudged normally to have the capacity to give or withhold consent and is actively refusing admission to hospital or treatment, use of mental health legislation should be considered.[2] In England and Wales there is no lower age limit to any of its provisions for compulsory hospital treatment.[3]

Recent examples of such cases include a 15 year old girl who refused treatment for severe anorexia nervosa and was detained to permit nasogastric feeding and a precociously mature and intelligent 13 year old boy with a possible manic disorder who refused continued admission and was consequently detained for further assessment.

Traditionally, child psychiatrists have had little call to resort to such measures and in these rare cases have tended to rely on parental consent alone. In the light of the Children Act 1989 this practice is now almost certainly untenable.[4] Both consultant child psychiatrists and senior registrars in training therefore need to be familiar with mental health legislation and, in England and Wales, should ensure that they are recognised as such by seeking the approval of the secretary of state under section 12(2) of the Mental Health Act 1983.[5] Paediatricians and other doctors working with children and young people should also be aware of the need to seek psychiatric advice in such cases.

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HIV infection in inner city A&E department

EDITOR,—M C Poznansky and colleagues' study of the prevalance of HIV infection among patients attending accident and emergency department highlights the use of accident and emergency services by HIV positive people.[1] This has implications for the training of staff as well as the planning of services.

The authors' data raise important questions that require further explanation and debate. In particular, the authors found that three quarters of the patients who were HIV positive were "foreign visitors." Their table suggests that at least five of these people (and possibly as many as eight) were registered with a general practitioner. This finding that up to 85% of the foreign visitors who were HIV positive but only 28% of those who were HIV negative were registered with a general practioner is surprising. In our experience, foreign visitors attending an accident and emergency department are unlikely to be registered with a general practitioner, and why HIV positive visitors should have such a high rate of registration in unclear. The authors do not state whether the general practitioners were in London or, indeed, were based in Britain, and these data are important. Foreign visitors' duration of stay in Britain may relate to their likelihood of being registered with a general practitioner, and again it is important to know whether the authors collected these data.

Of the 12 patients who were HIV positive, eight disclosed this information at presentation. In our unit HIV positive patients who present out of hours with urgent problems do so via the accident and emergency department (M B Lynch *et al*, meeting of Medical Society for the Study of Venereal Diseases, Zurich, 1993). It is unclear if the HIV positive patients in the study were attending for conditions related to HIV infection on their way to specialist care in the hospital.

The importance of studying the prevalence of HIV infection in acute settings is to inform medical practice and planning. Uncritical reporting of the prevalence should not, however, lead to action without more detailed analysis.

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1 Poznansky MC, Talkington J, Turner G, Bankes MJK, Parry JV, Connell JA, *et al.* Prevalance of HIV infection in patients attending an inner city accident and emergency department. *BMA* 1994;308:636-7. (5 March.)

Authors' reply

EDITOR,—The category of "foreign visitor" used in our paper covered patients who were not British citizens but had been resident in Britain for up to five years; it included tourists, foreign workers, refugees, and foreign students. In our experience a large proportion of people from these subgroups register with a general practitioner during their stay in Britain. In the study nine (75%) of the 12 HIV positive patients were foreign visitors; seven (58%) of the 12 knew their London based general practitioner. In comparison, 254 (28%) of the 906 HIV negative people were foreign visitors, and 453 (50%) of the 906 were registered with a general practitioner. Further study is required to define why there was an appreciably higher proportion of foreign visitors in the HIV positive group of patients than in the HIV negative group.

The triage groups for HIV positive patients in this study did not differ greatly from those for HIV negative patients. Of the 12 HIV positive patients, five were in major A and B categories and seven in minor A and B. The department of genitourinary medicine at St Mary's Hospital admits patients with conditions related to HIV infection via the accident and emergency department to the specialist unit on a 24 hour basis, but these "expected" HIV positive patients were not included in this study. Referral of patients to specialist care and specific diagnoses related to HIV infection were not noted in this study. Information gained from patients was necessarily brief to ensure full compliance by the patient and to aid complete data entry by the admitting accident and emergency senior house officer.

We reiterate that the prime importance of the finding of a prevalence of HIV-1 of 1 in 42 in patients aged between 16 and 45 attending an accident and emergency department in inner London is that it reinforces the use of procedures and equipment that reduce the exposure of health care workers to materials infected with HIV. Furthermore, we believe that, on the basis of our study and many studies performed in accident and emergency departments in inner cities in the United States, it is unlikely that St Mary's Hospital is alone in London in serving a population with a high prevalence of HIV-1 infection. We await results from other anonymous prevalence studies in accident and emergency departments in Britain with interest.

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Recovery from anaesthesia

EDITOR,—As John N Lunn states,[1] recovery room facilities in most hospitals meet the recently published requirements of the Association of Anaesthetists of Great Britain and Ireland.[2] In most hospitals, however, patients leave the recovery area to receive a variable standard of care in a surgical ward, which often contrasts sharply with that provided in the operating theatre and recovery room. This imbalance conflicts with recent evidence suggesting that adverse events occurring in the first three days postoperatively are as important as those occurring intraoperatively.[3,4]

Three years ago the Association of Anaesthetists published a document proposing the development of specific high dependency units to provide a level of care intermediate between that provided in intensive care units and that provided in general wards.[5] Such units would allow high risk patients to be grouped together; all such patients require skilled nursing, careful monitoring of physiological variables, meticulous fluid management, oxygen treatment, and optimal facilities for resuscitation. In addition, such facilities would allow the use of techniques such as thoracic epidural analgesia, which are not always possible in general surgical wards. For patients in the first three days after surgery one further advantage of a single location would be that immediate medical care could be provided by an anaesthetist, who is more familiar with these aspects of management than the surgical house officer usually delegated to look after such patients and who does not have the added responsibility of attending clinics or admitting new patients. Furthermore, an ideal environment is created in which to carry out the research so badly needed.

This description of how optimal care in the early postoperative period could be provided contrasts with reality. The postoperative high dependency units that have been developed are usually recovery areas modified by 24 hour nursing care, with the patient returning to the general ward on the first postoperative morning. Alternatively, the more traditional situation prevails whereby each ward has its own high dependency area. Neither of these situations can be considered ideal, but they may be more financially realistic than the option described above. On the other hand, a specifically designed, properly funded postoperative high